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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/641,802	08/17/2000	Istvan Boldogh	265.00240101	5387

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Mueting Raasch & Gebhardt PA
PO Box 581415
Minneapolis, MN 55458-1415

EXAMINER	
NICHOLS, CHRISTOPHER J	

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1647	

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Please find below and/or attached an Office communication concerning this application or proceeding.

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
09/641802	8/17/2000	BOLDOGH	265.00240101

EXAMINER	
NICHOLS	
ART UNIT	**PAPER**
1647	0

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Commissioner for Patents

DETAILED ACTION

SUPPLEMENTAL EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. In the Claims:

Claim 1 (Cancelled)

Claim 2 (Previously Amended) The method of claim 18 wherein the cells are present in a cell culture, an organ, a tissue, or an organism.

Claim 3 (Previously Amended) The method of claim 18 wherein the cells are mammalian cells.

Claim 4 (Original) The method of claim 3 wherein the cells are human cells.

Claim 5 (Cancelled)

Claim 6 (Previously Amended) The method of claim 18 wherein the neuronal cell regulator is a constituent peptide of colostrinin or an active analog of a constituent peptide of colostrinin.

Claim 7 (Previously Amended) The method of claim 18 wherein the neuronal cell regulator is selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID KO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPCKVEVFPFP (SEQ ID NO:8), VESYVPLFP (SEQ ID NO:31), and MHQPPQPLPPTVMFP (SEQ ID NO:34), and combinations thereof.

Claim 8 (Previously Amended) The method of claim 7 wherein the neuronal cell regulator is selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEUDLQPFQVQS (SEQ ID NO:3), LFFFLPVVNVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQEWT (SEQ ID NO:7), LKPFPKLKVEVFPFP (SEQ ID N0:8), and combinations thereof.

Claim 9 (Cancelled)

Claim 10 (Previously Amended) The method of claim 19 wherein the patient is human.

Claim 11 (Previously Amended) The method of claim 19 wherein the neuronal cell regulator is a constituent peptide of colostrinin or an active analog of a constituent peptide of colostrinin.

Claim 12 (Previously Amended) The method of claim 19 wherein the neuronal cell regulator is selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID KO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPCKVEVFPFP (SEQ ID NO:8), VESYVPLFP (SEQ ID NO:31), MHQPPQPLPPTVMFP (SEQ ID NO:34), and combinations thereof.

Claim 13 (Previously Amended) The method of claim 12 wherein the neuronal cell regulator is selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID NO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPKLKVEVFPFP (SEQ ID NO:8), and combinations thereof.

Claims 14-17 (Cancelled)

Claim 18 (Currently Amended) A method for promoting cell differentiation, the method comprising contacting pluripotent cells effective to form neuronal cells with a neuronal cell regulator selected from the group consisting of colostrinin, a constituent peptide of colostrinin, an active analog of a constituent peptide of colostrinin, and combinations thereof, under conditions effective to change pluripotent cells in morphology to form neuronal cells;

wherein the constituent peptide of colostrinin is selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID KO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPCKVEVFPFP (SEQ ID NO:8), VESYVPLFP (SEQ ID NO:31), MHQPPQPLPPTVMFP (SEQ ID NO:34), and combinations thereof;

wherein an active analog of a constituent peptide of colostrinin comprises a peptide having an amino acid sequence with at least about 15 percent proline and having at least about 70 percent sequence identity to a constituent peptide of colostrinin selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID KO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPCKVEVFPFP (SEQ ID NO:8), VESYVPLFP (SEQ ID NO:31), and MHQPPQPLPPTVMFP (SEQ ID NO:34);

and wherein said pluripotent cells change in morphology to form neuronal cells.

Claim 19 (Previously Presented) A method for promoting neuronal cell differentiation in a patient, the method comprising administering to the patient a neuronal cell regulator selected from the group consisting of colostrinin, a constituent peptide of colostrinin, an active analog of a constituent peptide of colostrinin, and combinations thereof, under conditions effective to promote differentiation of pluripotent cells to form neuronal cells;

wherein the constituent peptide of colostrinin is selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID KO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPCKVEVFPFP (SEQ ID NO:8), VESYVPLFP (SEQ ID NO:31), and MHQPPQPLPPTVMFP (SEQ ID NO:34);

wherein an active analog of a constituent peptide of colostrinin comprises a peptide having an amino acid sequence with at least about 15 percent proline and having at least about 70 percent sequence identity to a constituent peptide of colostrinin selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID KO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPCKVEVFPFP (SEQ ID NO:8), VESYVPLFP (SEQ ID NO:31), and MHQPPQPLPPTVMFP (SEQ ID NO:34);

and wherein said pluripotent cells differentiate to form neuronal cells.

Claim 20 (Previously Presented) A method for promoting neuronal cell differentiation, the method comprising contacting pluripotent cells of the nervous system with a neuronal cell regulator selected from the group consisting of colostrinin, a constituent peptide of colostrinin, an active analog of a constituent peptide of colostrinin, and combinations thereof, under conditions effective to promote differentiation of pluripotent cells to form neuronal cells;

wherein the constituent peptide of colostrinin is selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID KO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPCKVEVFPFP (SEQ ID NO:8), VESYVPLFP (SEQ ID NO:31), and MHQPPQPLPPTVMFP (SEQ ID NO:34);

wherein an active analog of a constituent peptide of colostrinin comprises a peptide having an amino acid sequence with at least about 15 percent proline and having at least about 70 percent sequence identity to a constituent peptide of colostrinin selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID KO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPCKVEVFPFP (SEQ ID NO:8), VESYVPLFP (SEQ ID NO:31), and MHQPPQPLPPTVMFP (SEQ ID NO:34).

Claim 21 (Previously Presented) The method of claim 20 wherein the cells are present in a cell culture, an organ, a tissue, or an organism.

Claim 22 (Previously Presented) The method of claim 20 wherein the cells are mammalian cells.

Claim 23 (Previously Presented) The method of claim 22 wherein the cells are human cells.

Claim 24 (Previously Presented) The method of claim 20 wherein the neuronal cell regulator is a constituent peptide of colostrinin or an active analog of a constituent peptide of colostrinin.

Claim 25 (Previously Presented) The method of claim 21 wherein the neuronal cell regulator is selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID KO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPCKVEVFPFP (SEQ ID NO:8), VESYVPLFP (SEQ ID NO:31), MHQPPQPLPPTVMFP (SEQ ID NO:34), and combinations thereof.

Claim 26 (Previously Presented) The method of claim 21 wherein the neuronal cell regulator is selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID NO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPKLKVEVFPFP (SEQ ID NO:8), and combinations thereof.

Claim 27 (Previously Presented) A method for promoting neuronal cell differentiation in a patient, the method comprising administering to the patient a neuronal cell regulator selected from the group consisting of colostrinin, a constituent peptide of colostrinin, an active analog of a constituent peptide of colostrinin, and combinations thereof, under conditions effective to promote differentiation of pluripotent cells of the nervous system to form neuronal cells;

wherein the constituent peptide of colostrinin is selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID KO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPCKVEVFPFP (SEQ ID NO:8), VESYVPLFP (SEQ ID NO:31), and MHQPPQPLPPTVMFP (SEQ ID NO:34);

wherein an active analog of a constituent peptide of colostrinin comprises a peptide having an amino acid sequence with at least about 15 percent proline and having at least about 70 percent sequence identity to a constituent peptide of colostrinin selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID KO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPCKVEVFPFP (SEQ ID NO:8), VESYVPLFP (SEQ ID NO:31), and MHQPPQPLPPTVMFP (SEQ ID NO:34);

and wherein pluripotent cells of the nervous system differentiate to form neuronal cells.

Claim 28 (Previously Presented) The method of claim 27, wherein the patient is human.

Claim 29 (Previously Amended) The method of claim 27 wherein the neuronal cell regulator is a constituent peptide of colostrinin or an active analog of a constituent peptide of colostrinin.

Claim 30 (Previously Presented) The method of claim 27 wherein the neuronal cell regulator is selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID KO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPCKVEVFPFP (SEQ ID NO:8), VESYVPLFP (SEQ ID NO:31), MHQPPQPLPPTVMFP (SEQ ID NO:34), and combinations thereof.

Claim 31 (Previously Presented) The method of claim 27 wherein the neuronal cell regulator is selected from the group consisting of MQPPPLP (SEQ ID NO:1), LQTPQPLLQVMMEPQGD (SEQ ID NO:2), DQPPDVEKPDLQPFQVQS (SEQ ID NO:3), LFFFLPVGVLP (SEQ ID NO:4), DLEMPVLPVEPFPFV (SEQ ID NO:5), MPQNFYKLPQM (SEQ ID NO:6), VLEMKFPPPPQETVT (SEQ ID NO:7), LKPFPKLKVEVFPFP (SEQ ID NO:8), and combinations thereof.

3. Authorization for this examiner's amendment was given in a telephone interview with Nancy Johnson on 9 September 2004.

REASONS FOR ALLOWANCE

4. The following is an examiner's statement of reasons for allowance: the instant Examiner's Amendment is to correct a typo in claim 18 in the Notice of Allowability mailed on 4 August 2004. No patentability issues have been raised.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Christopher James Nichols, Ph.D.** whose telephone number is **(571) 272-0889**. The examiner can normally be reached on Monday through Friday, 8:00 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Brenda Brumback** can be reached on **(571) 272-0961**.

The fax number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see **http://pair-direct.uspto.gov**. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).

CJN
September 9, 2004

BRENDA BRUMBACK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600